

How to

AXIS W401Body Worn Activation Kit

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1. Introduction

Automation has become a critical aspect of any body worn camera program. The primary use case for the AXIS W401 Body Worn Activation Kit is public safety, but it can be used in a more general sense to auto-activate an Axis body worn camera or ensure the camera is recording. This can be accomplished with the AXIS W401 as it has Bluetooth built in, which can send and receive beacons with an approved Axis body worn system.

When a Bluetooth signal from the AXIS W401 is generated, it will send out a beacon with the AXIS W800 System Controller system ID embed in the signal to ensure only Axis body worn cameras belonging to that system are activated. This signal can be configured in two ways; one 10 sec pulse or a constant beacon until the event trigger has been stopped. Vice versa, the AXIS W401 can be programmed to receive a Bluetooth beacon from an authorized Axis body worn camera to generate an event driven by the AXIS W401.

The objective of this document is to provide guidance on programming, installation and some use cases on how the AXIS W401 can be used.

2. Programming

PLEASE NOTE: If installing this device in a vehicle, ensure that it is programmed prior to providing it to the vehicle upfitter. Ensure that the body worn system has been configured, as you will need the system ID from the AXIS W800. Also, if installing in a vehicle, setting an IP address is NOT required but does help if troubleshooting.

Log into the AXIS W401 and set a username and password.

- Copy the AXIS W800 system ID associated with this W401.
 - Log into you AXIS W800 > top right-hand corner click on the 3 ellipse > click About > copy the system ID
 - While logged into you AXIS W800, ensure that the user profiles have Bluetooth send and receive configured.

About	
System name System ID	ACS d556304f-0b5e-4a33-a73b-a56f042de628
Device software version	12.2.61
	Close

	AX	IS Body Worn Manager ACS 522
න 8	User name	• Position
	Activation Recording button	
	Single press V	Signal strength
	Anways record Record on fall detection	Record on received wireless broadcast

2.1. Creating 10 sec. pulse

With this rule, the AXIS W401 will only create one 10 sec pulse when the input is triggered. Log into the AXIS W401 and got to:

System > Events > Rules > Add rule > Name rule > Condition = Digital Input is active > Port = Any input or the individual input > Action = Broadcast signal > Copy and paste the AXIS W800 system ID > Message type = 1

	AXIS W401 Body Worn Activation Kit
Status	Add rule
Apps	Rules Recipien
System ^	+ Add a rule Name
Time and location	Bluetooth 10 sec pulse
WLAN	Name Wait between actions (hh:mm:ss)
Network	00:00:00
Security	
Accounts	Condition
Events	Use this condition as a trigger
MQTT	Digital input is active
ONVIF	Invert this condition
Power settings	Port
Accessories	Any ~
Logs	+ Add a condition
Plain config	
Maintenance	Action
	Broadcast signal V
	System ID
	d556304f-0b5e-4a33-a73b-a56f042de628
	Message type
	Cancel

2.2. Creating a continuous pulse

With this rule, the AXIS W401 will create a continuous pulse until the triggering event has stopped. This will activate any body worn camera associated with the system, within range. The use case for this is when the Bluetooth beacon should be on until the event has stopped.

Log into the AXIS W401 and program a schedule for pulse which will allow for the constant pulse event.

Go to:

System > Events > Schedule > Add Schedule > Change the Type to Pulse > Name the schedule > Set recurrence to 5 sec. > Save

₩ Status			
🗄 Apps	Rules Recipients Schedules Manual	triggers	
System	+ Add schedule		
Time and location			
WLAN	Name	Description	
Network	After Hours	Daily	:
Security	Office Hours	Daily	:
Accounts	Weekdays Add schedule		:
Events	Weekends Name		:
MQTT	Bluetooth Pulse		
ONVIF	Туре		
Power settings	Schedule		
Accessories	• Fuise		
Logs	Recurrence S Second	ts v	
Plain config		-	
Maintenance		Cancel Save	

Next go to Rules:

Add rule > Name rule > Condition 1 = Pulse > Condition 2 = Digital Input is active > Port = Any input or the individual input > Action = Broadcast signal > Copy and paste the AXIS W800 system ID > Message type = 1

Rules Recipients Schedules	Edit rule	
+ Add a rule ③	✓ Use this rule	
	Name	
Name	Bluetooth Pulse Always	
8luetooth	Walt between actions (hhammass)	signal
Bluetooth 10 sec pulse	00:00:00	ignal
	Condition (1)	
	✓ Use this condition as a trigger	
	Pulse ~	
	Pulse	
	Pulse V	J
		·
	Condition (2)	
	Digital input is active \sim	
	Invert this condition	
	Port	
	Any V	
	+ Add a condition	
	Action	
	Rmadrast sinnal	
	System ID	
	0f7370df-7274-4ca4-98c3-ab8624e51522	
	Message type	
	1	
	Cancel	
	Surres 3dvc	

2.3. Adjusting Bluetooth Beacon Strength

The Bluetooth strength on the AXIS W401 can be adjusted. Out of the box, the AXIS W401 is set to its highest strength (30) which can activate a camera **out to 300ft; line of site.** It can be adjusted down from there.

Go to:

System > Plain config > Wireless > adjust from 30 down

OMMUNICATIONS		AXIS W401 Body Worn Activa	ition Kit
•		A Plain config is for expert users only. Only change t	he settings if vou know what vou're doing
			5, , , 5
	Plain config		
- I	Select group	Search for parameters by ID	Show hidden parameters
	Wireless	✓ Type at least three letters	
	① To see the effect of yo Wireless / Bluetooth	ur changes, you might have to refresh the webpage or rest	art the device.
	① To see the effect of yo Wireless / Bluetooth Range	ur changes, you might have to refresh the webpage or rest	art the device.
	To see the effect of yo Wireless / Bluetooth Range 30	ur changes, you might have to refresh the webpage or rest	art the device.

2.4. Receiving a Bluetooth Beacon

The AXIS W401 can receive a Bluetooth beacon from an Axis body worn camera. When the body worn camera starts recording a Bluetooth signal is sent to the AXIS W401, which can then send an output into another system. For example, an output could be tied into an alarm panel so when a body worn camera is activated the AXIS W401 triggers the alarm panel.

Go to:

System > Accessories > Change the associated Pin/Port from an input to an output event

AXIS	AXIS W401 Body Worn	Activation Kit
C Fiscal and Boation Secondry Records Accounts Records Accounts Records Convert Records Conv	UC perts Custors if you change Direction or Hormal state, weiting configuration Fulf 1 News U(0 1 - Pro 3 Direction Of 0	Des fielt rely on (10 ports could istep working. Pert 2 Vorte 10 1 - Fiel 4 Descion 0 0 Normet tate 1 1
Accessories Logs Plain config	Current state: Ciecuit open Supervised (Toggle port URL ~

Next:

System > Events > Add Rule > Name the rule > Condition is Bluetooth beacon signal received > Input the AXIS W800 system ID > Action = Toggle I/O once > Select the output Pin > State = Active > Duration = 1sec > Save

	AXIS W401 Body Worn Activation Kit
Rules Recipients Schedules + Add a rule O Name Buetooth 10 sec puise Buetooth Puise Always	AXIS W401 Body Worn Activation Kit Add rule Use this rule Name BT Output Wait between actions (htmmss) 000000 Cendition
	Use this condition as a trigger Bluetooth® beacon signal received System ID Of7370df-7274-4ca4-98c3-ab8624e51522 + Add a condition
	Toggle I/O once > Port //O 1 - Pin 4 > State
	Cancel Save

3. Physical Install

The AXIS W401can be powered by 12V or POE. It can be installed inside of a facility or in the back of a public safety vehicle. In either case, secure the AXIS W401near the tiggering source, per the <u>installation guide instructions</u>.

3.1. POE Installation

Connect the AXIS W401 to a POE power source.

3.2. 12 Volt Installation

Use a constant or switched 12V DC power source. **Use a 2amp fuse inline between the positive power source and the AXIS W401**. The DC terminal, on the AXIS W401, from left to right is Negative, Positive and Ignition Sense. If using ignition sense, ensure to wire a switched power source to this Pin and toggle delayed shutdown on.



To enable delayed shutdown, go to:

System > Power Settings > Toggle delayed shutdown on > Set the time parameter

<
Time and location System WLAN
Network
Security
Accounts
Events
MQTT
ONVIF
Power settings
Accessories
Logs
Plain config

3.3. Wiring the Input

The DIO on the AXIS W401 is configured to be in a floating state, meaning to trigger an event, the input needs to receive a grounded signal. The AXIS W401 supports up to 8 individual triggers across 2 terminals. When programming the I/O's inside of the F91, you will see them referred to Ports. I/O Pin 3 = Port 1.

Terminal 1

- 1. DC Ground
- 2. DC Output 12V
- 3. Port 1 = I/O 1 Pin 3
- 4. Port 2 = I/O 1 Pin 4
- 5. Port 3 = I/O 1 Pin 5
- 6. Port 4 = I/O 1 Pin 6

Terminal 2

- 1. DC Ground
 - 2. DC Output 12V
 - 3. Port 5 = I/O 2 Pin 3
- 4. Port 6 = I/O 2 Pin 4
- 5. Port 7 = I/O 2 Pin 5
- 6. Port 8 = I/O 2 Pin 6

Choose which terminal that will be used and wire Pin 1 to the common ground that is shared by the triggering source. Take the trigger wire and

terminate it into either pins 3, 4, 5, or 6. There can be multiple trigger sources and configurations.

Pin 3, 4, 5, or 6 need to receive a grounded trigger. If the trigger source is supplying a positive power, that will need to be converted to a ground via a relay like the example below:



4. Closing

For a video demonstration of this solution in action go to this YouTube link: <u>https://www.youtube.com/watch?v=Y8V-7ZqzN6o</u>



This document was written by: Steven Jussaume Solutions Engineer AXIS Americas April 17, 2025